

## PATENT COOPERATION TREATY

PCT

## NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Commissioner  
 US Department of Commerce  
 United States Patent and Trademark  
 Office, PCT  
 2011 South Clark Place Room  
 CP2/5C24  
 Arlington, VA 22202  
 ETATS-UNIS D'AMERIQUE  
 in its capacity as elected Office

|   |   |
|---|---|
| Date of mailing (day/month/year)<br>21 June 2001 (21.06.01)           | Applicant's or agent's file reference<br>SCB583PCT        |
| International application No.<br>PCT/EP00/07184                       | Priority date (day/month/year)<br>30 July 1999 (30.07.99) |
| International filing date (day/month/year)<br>26 July 2000 (26.07.00) |   |
| Applicant<br>BONGRANI, Stefano et al                                  |   |

1. The designated Office is hereby notified of its election made:

☒

in the demand filed with the International Preliminary Examining Authority on:

12 February 2001 (12.02.01)

☐

in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was

☐

was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

|   |                                     |
|---|-------------------------------------|
| The International Bureau of WIPO<br>34, chemin des Colombettes<br>1211 Geneva 20, Switzerland | Authorized officer<br>Pascal Piriou |
| Facsimile No.: (41-22) 740.14.35  | Telephone No.: (41-22) 338.83.38    |

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
8 February 2001 (08.02.2001)

PCT

(10) International Publication Number  
**WO 01/08667 A2**

(51) International Patent Classification<sup>7</sup>: **A61K 31/00**

(74) Agents: MINOJA, Fabrizio et al.; Bianchetti Bracco Minoja SRL, Via Rossini, 8, I-20122 Milano (IT).

(21) International Application Number: PCT/EP00/07184

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(22) International Filing Date: 26 July 2000 (26.07.2000)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
MI99A001713 30 July 1999 (30.07.1999) IT

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

(71) Applicant (*for all designated States except US*): CHIESI FARMACEUTICI S.P.A. [IT/IT]; Via Palermo, 26/A, I-43100 Parma (IT).

**Published:**

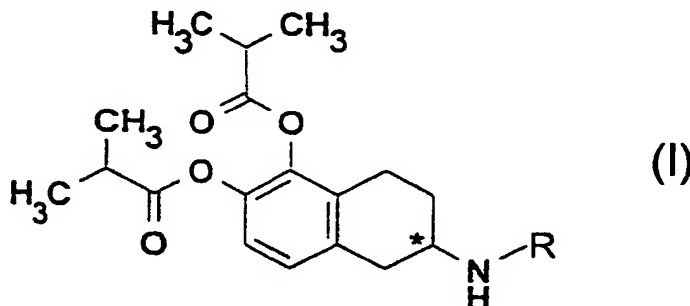
— Without international search report and to be republished upon receipt of that report.

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): BONGRANI, Stefano [IT/IT]; Via Palermo, 26/A, I-43100 Parma (IT). RAZZETTI, Roberta [IT/IT]; Via Palermo, 26/A, I-43100 Parma (IT). CHIESI, Paolo [IT/IT]; Via Palermo, 26/A, I-43100 Parma (IT).

(54) Title: 2-AMINOTETRALIN DERIVATIVES FOR THE THERAPY OF GLAUCOMA



(57) Abstract: The use of racemic or optically active compounds represented by formula (I) and the salts thereof wherein R is H or CH<sub>3</sub> for the preparation of pharmaceutical compositions for the therapy of ophthalmic disorders.

WO 01/08667 A2

# INTERNATIONAL SEARCH REPORT

Int .tional Application No

PCT/EP 00/07184

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 A61K31/216 A61P27/06

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

BIOSIS, EPO-Internal, WPI Data, PAJ, CHEM ABS Data, EMBASE, MEDLINE, SCISEARCH

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

| Category * | Citation of document, with indication, where appropriate, of the relevant passages   | Relevant to claim No. |
|------------|--|-----------------------|
| X          | MORISCO CARMINE ET AL: "Hemodynamic effects of graded oral doses of a new dopaminergic analogue CHF 1035 in patients with congestive heart failure."<br>JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY,<br>no. SPEC. ISSUE, 1995, page 128A<br>XP000989553<br>44th Annual Scientific Session of the American College of Cardiology; New Orleans, Louisiana, USA; March 19-22, 1995<br>ISSN: 0735-1097<br>paragraph '0001! - paragraph '0002!<br>--- | 4,5                   |
| X          | GB 2 123 410 A (CHIESI FARMA SPA)<br>1 February 1984 (1984-02-01)<br>claim 25<br>page 1, line 35 - line 44<br>---  | 4,5                   |
| -/-        |  |                       |

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

\* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*G\* document member of the same patent family

Date of the actual completion of the international search

5 March 2001

Date of mailing of the international search report

09/03/2001

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Bonzano, C

# INTERNATIONAL SEARCH REPORT

Int .tional Application No

PCT/EP 00/07184

| C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT |   |                       |
|--|---|-----------------------|
| Category *   | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No. |
| X  | WO 96 29065 A (UMILE ALBERTO ;CHIESI PAOLO<br>(IT); BONGRANI STEFANO (IT); CHIESI FA)<br>26 September 1996 (1996-09-26)       | 4,5                   |
| Y  | page 3, paragraph 3 - paragraph 7<br>---  | 1-3                   |
| Y  | US 5 236 907 A (UENO RYUZO ET AL)<br>17 August 1993 (1993-08-17)<br>column 9, line 56 -column 10, line 3<br>claims 1,4<br>--- | 1-3                   |
| Y  | EP 0 009 702 A (SCHERING CORP)<br>16 April 1980 (1980-04-16)<br>page 21, line 30 -page 22, line 5<br>-----                    | 1-3                   |

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 00/07184

| Patent document<br>cited in search report | Publication<br>date | Patent family<br>member(s) | Publication<br>date |
|---|---------------------|----------------------------|---------------------|
| GB 2123410 A                              | 01-02-1984          | IT 1218322 B               | 12-04-1990          |
|   |                     | DE 3320936 A               | 22-12-1983          |
|   |                     | FR 2528422 A               | 16-12-1983          |
| WO 9629065 A                              | 26-09-1996          | IT MI950532 A              | 17-09-1996          |
|   |                     | AU 702656 B                | 25-02-1999          |
|   |                     | AU 5107296 A               | 08-10-1996          |
|   |                     | BR 9607996 A               | 23-06-1998          |
|   |                     | CA 2215671 A               | 26-09-1996          |
|   |                     | CN 1181699 A               | 13-05-1998          |
|   |                     | CZ 9702866 A               | 18-03-1998          |
|   |                     | EP 0814791 A               | 07-01-1998          |
|   |                     | HU 9801686 A               | 28-06-1999          |
|   |                     | JP 11502211 T              | 23-02-1999          |
|   |                     | LT 97147 A, B              | 25-02-1998          |
|   |                     | LV 11882 A                 | 20-12-1997          |
|   |                     | LV 11882 B                 | 20-03-1998          |
|   |                     | NO 974267 A                | 07-11-1997          |
|   |                     | PL 322284 A                | 19-01-1998          |
|   |                     | SI 9620036 A               | 28-02-1998          |
|   |                     | SK 125497 A                | 04-02-1998          |
|   |                     | TR 9700963 T               | 21-02-1998          |
|   |                     | US 6013678 A               | 11-01-2000          |
|   |                     | ZA 9602073 A               | 25-09-1996          |
| US 5236907 A                              | 17-08-1993          | JP 2008226 C               | 11-01-1996          |
|   |                     | JP 2096528 A               | 09-04-1990          |
|   |                     | JP 7039343 B               | 01-05-1995          |
|   |                     | JP 2009965 C               | 02-02-1996          |
|   |                     | JP 2096529 A               | 09-04-1990          |
|   |                     | JP 7039344 B               | 01-05-1995          |
|   |                     | AT 111736 T                | 15-10-1994          |
|   |                     | AT 162074 T                | 15-01-1998          |
|   |                     | DE 68918391 D              | 27-10-1994          |
|   |                     | DE 68918391 T              | 19-01-1995          |
|   |                     | DE 68928551 D              | 19-02-1998          |
|   |                     | DE 68928551 T              | 23-04-1998          |
|   |                     | EP 0366279 A               | 02-05-1990          |
|   |                     | EP 0580268 A               | 26-01-1994          |
|   |                     | US 5194429 A               | 16-03-1993          |
| EP 0009702 A                              | 16-04-1980          | AT 351 T                   | 15-11-1981          |
|   |                     | AU 528626 B                | 05-05-1983          |
|   |                     | AU 5088179 A               | 27-03-1980          |
|   |                     | CA 1151211 A               | 02-08-1983          |
|   |                     | CY 1175 A                  | 10-06-1983          |
|   |                     | DD 150457 A                | 02-09-1981          |
|   |                     | DE 2961263 D               | 14-01-1982          |
|   |                     | DK 387579 A                | 21-03-1980          |
|   |                     | ES 484208 D                | 01-12-1980          |
|   |                     | ES 8101038 A               | 01-03-1981          |
|   |                     | FI 792884 A                | 21-03-1980          |
|   |                     | GR 73179 A                 | 14-02-1984          |
|   |                     | HK 13383 A                 | 29-04-1983          |
|   |                     | HU 185523 B                | 28-02-1985          |
|   |                     | IE 49301 B                 | 18-09-1985          |
|   |                     | IL 58258 A                 | 31-01-1984          |
|   |                     | JP 1605790 C               | 31-05-1991          |

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No  
PCT/EP 00/07184

| Patent document<br>cited in search report | Publication<br>date | Patent family<br>member(s) | Publication<br>date |
|---|---------------------|----------------------------|---------------------|
| EP 0009702 A                              |                     | JP 2010128 B               | 06-03-1990          |
|   |                     | JP 55055147 A              | 22-04-1980          |
|   |                     | JP 59108749 A              | 23-06-1984          |
|   |                     | JP 2167253 A               | 27-06-1990          |
|   |                     | KE 3283 A                  | 13-05-1983          |
|   |                     | KR 8901998 B               | 07-06-1989          |
|   |                     | MY 4285 A                  | 31-12-1985          |
|   |                     | NO 792993 A, B,            | 21-03-1980          |
|   |                     | NZ 191589 A                | 30-03-1984          |
|   |                     | OA 6339 A                  | 30-06-1981          |
|   |                     | PH 16794 A                 | 28-02-1984          |
|   |                     | PL 218408 A                | 08-09-1980          |
|   |                     | PT 70191 A                 | 01-10-1979          |
|   |                     | SG 283 G                   | 16-09-1983          |
|   |                     | US 4312863 A               | 26-01-1982          |
|   |                     | US 4619919 A               | 28-10-1986          |
|   |                     | US 4950783 A               | 21-08-1990          |
|   |                     | YU 227379 A                | 30-06-1983          |
|   |                     | ZA 7904872 A               | 26-11-1980          |

# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

|   |   |  |
|---|---|--|
| Applicant's or agent's file reference<br><b>SCB583PCT</b> | <b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below. |  |
| International application No.<br><b>PCT/EP 00/ 07184</b>  | International filing date (day/month/year)<br><b>26/07/2000</b>   | (Earliest) Priority Date (day/month/year)<br><b>30/07/1999</b> |
| Applicant<br><br><b>CHIESI FARMACEUTICI S.P.A. et al.</b> |   |  |

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

### 1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

☐ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

☒ None of the figures.

# INTER IONAL SEARCH REPORT

International Application No

PCT/EP 00/07184

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 A61K31/216 A61P27/06

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

BIOSIS, EPO-Internal, WPI Data, PAJ, CHEM ABS Data, EMBASE, MEDLINE, SCISEARCH

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

| Category * | Citation of document, with indication, where appropriate, of the relevant passages   | Relevant to claim No. |
|------------|--|-----------------------|
| X          | MORISCO CARMINE ET AL: "Hemodynamic effects of graded oral doses of a new dopaminergic analogue CHF 1035 in patients with congestive heart failure."<br>JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY,<br>no. SPEC. ISSUE, 1995, page 128A<br>XP000989553<br>44th Annual Scientific Session of the American College of Cardiology; New Orleans, Louisiana, USA; March 19-22, 1995<br>ISSN: 0735-1097<br>paragraph '0001! - paragraph '0002!<br>--- | 4,5                   |
| X          | GB 2 123 410 A (CHIESI FARMA SPA)<br>1 February 1984 (1984-02-01)<br>claim 25<br>page 1, line 35 - line 44<br>---<br>-/--  | 4,5                   |

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

\* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*G\* document member of the same patent family

Date of the actual completion of the international search

5 March 2001

Date of mailing of the international search report

09/03/2001

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Bonzano, C



## INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 00/07184

| C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT |   |                       |
|--|---|-----------------------|
| Category *   | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No. |
| X  | WO 96 29065 A (UMILE ALBERTO ;CHIESI PAOLO<br>(IT); BONGRANI STEFANO (IT); CHIESI FA)<br>26 September 1996 (1996-09-26)       | 4,5                   |
| Y  | page 3, paragraph 3 - paragraph 7<br>---  | 1-3                   |
| Y  | US 5 236 907 A (UENO RYUZO ET AL)<br>17 August 1993 (1993-08-17)<br>column 9, line 56 -column 10, line 3<br>claims 1,4<br>--- | 1-3                   |
| Y  | EP 0 009 702 A (SCHERING CORP)<br>16 April 1980 (1980-04-16)<br>page 21, line 30 -page 22, line 5<br>-----                    | 1-3                   |

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 00/07184

| Patent document<br>cited in search report |   | Publication<br>date | Patent family<br>member(s)   | Publication<br>date  |
|---|---|---------------------|--|--|
| GB 2123410                                | A | 01-02-1984          | IT 1218322 B<br>DE 3320936 A<br>FR 2528422 A   | 12-04-1990<br>22-12-1983<br>16-12-1983   |
| WO 9629065                                | A | 26-09-1996          | IT MI950532 A<br>AU 702656 B<br>AU 5107296 A<br>BR 9607996 A<br>CA 2215671 A<br>CN 1181699 A<br>CZ 9702866 A<br>EP 0814791 A<br>HU 9801686 A<br>JP 11502211 T<br>LT 97147 A,B<br>LV 11882 A<br>LV 11882 B<br>NO 974267 A<br>PL 322284 A<br>SI 9620036 A<br>SK 125497 A<br>TR 9700963 T<br>US 6013678 A<br>ZA 9602073 A | 17-09-1996<br>25-02-1999<br>08-10-1996<br>23-06-1998<br>26-09-1996<br>13-05-1998<br>18-03-1998<br>07-01-1998<br>28-06-1999<br>23-02-1999<br>25-02-1998<br>20-12-1997<br>20-03-1998<br>07-11-1997<br>19-01-1998<br>28-02-1998<br>04-02-1998<br>21-02-1998<br>11-01-2000<br>25-09-1996 |
| US 5236907                                | A | 17-08-1993          | JP 2008226 C<br>JP 2096528 A<br>JP 7039343 B<br>JP 2009965 C<br>JP 2096529 A<br>JP 7039344 B<br>AT 111736 T<br>AT 162074 T<br>DE 68918391 D<br>DE 68918391 T<br>DE 68928551 D<br>DE 68928551 T<br>EP 0366279 A<br>EP 0580268 A<br>US 5194429 A   | 11-01-1996<br>09-04-1990<br>01-05-1995<br>02-02-1996<br>09-04-1990<br>01-05-1995<br>15-10-1994<br>15-01-1998<br>27-10-1994<br>19-01-1995<br>19-02-1998<br>23-04-1998<br>02-05-1990<br>26-01-1994<br>16-03-1993   |
| EP 0009702                                | A | 16-04-1980          | AT 351 T<br>AU 528626 B<br>AU 5088179 A<br>CA 1151211 A<br>CY 1175 A<br>DD 150457 A<br>DE 2961263 D<br>DK 387579 A<br>ES 484208 D<br>ES 8101038 A<br>FI 792884 A<br>GR 73179 A<br>HK 13383 A<br>HU 185523 B<br>IE 49301 B<br>IL 58258 A<br>JP 1605790 C  | 15-11-1981<br>05-05-1983<br>27-03-1980<br>02-08-1983<br>10-06-1983<br>02-09-1981<br>14-01-1982<br>21-03-1980<br>01-12-1980<br>01-03-1981<br>21-03-1980<br>14-02-1984<br>29-04-1983<br>28-02-1985<br>18-09-1985<br>31-01-1984<br>31-05-1991   |

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 00/07184

| Patent document<br>cited in search report | Publication<br>date | Patent family<br>member(s) | Publication<br>date |
|---|---------------------|----------------------------|---------------------|
| EP 0009702 A                              |                     | JP 2010128 B               | 06-03-1990          |
|   |                     | JP 55055147 A              | 22-04-1980          |
|   |                     | JP 59108749 A              | 23-06-1984          |
|   |                     | JP 2167253 A               | 27-06-1990          |
|   |                     | KE 3283 A                  | 13-05-1983          |
|   |                     | KR 8901998 B               | 07-06-1989          |
|   |                     | MY 4285 A                  | 31-12-1985          |
|   |                     | NO 792993 A, B,            | 21-03-1980          |
|   |                     | NZ 191589 A                | 30-03-1984          |
|   |                     | OA 6339 A                  | 30-06-1981          |
|   |                     | PH 16794 A                 | 28-02-1984          |
|   |                     | PL 218408 A                | 08-09-1980          |
|   |                     | PT 70191 A                 | 01-10-1979          |
|   |                     | SG 283 G                   | 16-09-1983          |
|   |                     | US 4312863 A               | 26-01-1982          |
|   |                     | US 4619919 A               | 28-10-1986          |
|   |                     | US 4950783 A               | 21-08-1990          |
|   |                     | YU 227379 A                | 30-06-1983          |
|   |                     | ZA 7904872 A               | 26-11-1980          |

# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

|  |  |   |  |
|--|--|---|--|
| Applicant's or agent's file reference<br>SCB583PCT   |  | <b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416) |  |
| International application No.<br>PCT/EP00/07184  | International filing date (day/month/year)<br>26/07/2000 | Priority date (day/month/year)<br>30/07/1999  |  |
| International Patent Classification (IPC) or national classification and IPC<br>A61K31/216 |  |   |  |
| Applicant<br>CHIESI FARMACEUTICI S.P.A. et al.   |  |   |  |

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.


2. This REPORT consists of a total of 4 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

|  |  |
|--|--|
| Date of submission of the demand<br><br>12/02/2001   | Date of completion of this report<br><br>13.07.2001                            |
| Name and mailing address of the international preliminary examining authority:<br><br> European Patent Office<br>D-80298 Munich<br>Tel. +49 89 2399 - 0 Tx: 523656 epmu d<br>Fax: +49 89 2399 - 4465. | Authorized officer<br><br>Cattell, James<br><br>Telephone No. +49 89 2399 8468 |



# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/EP00/07184

## I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

### Description, pages:

1-14 as originally filed

### Claims, No.:

1-5 as originally filed

### Drawings, sheets:

1/2-2/2 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/EP00/07184

☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

|                               |                 |
|-------------------------------|-----------------|
| Novelty (N)                   | Yes: Claims 1-5 |
|                               | No: Claims      |
| Inventive step (IS)           | Yes: Claims 1-5 |
|                               | No: Claims      |
| Industrial applicability (IA) | Yes: Claims 1-5 |
|                               | No: Claims      |

- 2. Citations and explanations  
see separate sheet**

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

---

International application No. PCT/EP00/07184

V.

- 1). The compounds of the claims are known for use in cardio vascular disorders (See D1, Morisce Carmine et al; D2, GB-A-2 123 410, page 10 lines 7 to 13 and D3, WO 96 29065, page 17 lines 3 to 11)

The specific use to treat glaucoma in dedicated ophthalmic solutions is neither discloses nor obvious from these documents under Article 33 PCT.

# PATENT COOPERATION TREATY

# PCT

REC'D 17 JUL 2001

WIPO

PCT

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)


|  |   |  |
|--|---|--|
| Applicant's or agent's file reference<br>SCB583PCT   | <b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416) |  |
| International application No.<br>PCT/EP00/07184  | International filing date (day/month/year)<br>26/07/2000  | Priority date (day/month/year)<br>30/07/1999 |
| International Patent Classification (IPC) or national classification and IPC<br>A61K31/216 |   |  |
| Applicant<br>CHIESI FARMACEUTICI S.P.A. et al.   |   |  |

- This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 4 sheets, including this cover sheet.
  - ☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

- This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

|   |  |
|---|--|
| Date of submission of the demand<br><br>12/02/2001  | Date of completion of this report<br><br>13.07.2001                            |
| Name and mailing address of the international preliminary examining authority:<br><br> European Patent Office<br>D-80298 Munich<br>Tel. +49 89 2399 - 0 Tx: 523656 epmu d<br>Fax: +49 89 2399 - 4465 | Authorized officer<br><br>Cattell, James<br><br>Telephone No. +49 89 2399 8468 |





# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/EP00/07184

## I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

**Description, pages:**

1-14 as originally filed

**Claims, No.:**

1-5 as originally filed

**Drawings, sheets:**

1/2-2/2 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/EP00/07184

☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

|                               |      |        |     |
|-------------------------------|------|--------|-----|
| Novelty (N)                   | Yes: | Claims | 1-5 |
|                               | No:  | Claims |     |
| Inventive step (IS)           | Yes: | Claims | 1-5 |
|                               | No:  | Claims |     |
| Industrial applicability (IA) | Yes: | Claims | 1-5 |
|                               | No:  | Claims |     |

2. Citations and explanations  
**see separate sheet**

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

---

International application No. PCT/EP00/07184

V.

- 1). The compounds of the claims are known for use in cardio vascular disorders (See D1, Morisçe Carmine et al; D2, GB-A-2 123 410, page 10 lines 7 to 13 and D3, WO 96 29065, page 17 lines 3 to 11)

The specific use to treat glaucoma in dedicated ophthalmic solutions is neither discloses nor obvious from these documents under Article 33 PCT.

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 00/07184

**A. CLASSIFICATION OF SUBJECT MATTER**  
 IPC 7 A61K31/216 A61P27/06

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

BIOSIS, EPO-Internal, WPI Data, PAJ, CHEM ABS Data, EMBASE, MEDLINE, SCISEARCH

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

| Category * | Citation of document, with indication, where appropriate, of the relevant passages   | Relevant to claim No. |
|------------|--|-----------------------|
| X          | MORISCO CARMINE ET AL: "Hemodynamic effects of graded oral doses of a new dopaminergic analogue CHF 1035 in patients with congestive heart failure."<br>JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY,<br>no. SPEC. ISSUE, 1995, page 128A<br>XP000989553<br>44th Annual Scientific Session of the American College of Cardiology; New Orleans, Louisiana, USA; March 19-22, 1995<br>ISSN: 0735-1097<br>paragraph '0001! - paragraph '0002!<br>--- | 4,5                   |
| X          | GB 2 123 410 A (CHIESI FARMA SPA)<br>1 February 1984 (1984-02-01)<br>claim 25<br>page 1, line 35 - line 44<br>---  | 4,5                   |
|            | -/-  |                       |

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

\* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- \*8\* document member of the same patent family

Date of the actual completion of the international search

5 March 2001

Date of mailing of the international search report

09/03/2001

Name and mailing address of the ISA  
 European Patent Office, P.B. 5818 Patentlaan 2  
 NL - 2280 HV Rijswijk  
 Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
 Fax: (+31-70) 340-3016

Authorized officer

Bonzano, C

# INTERNATIONAL SEARCH REPORT

Int. Application No  
PCT/EP 00/07184

**C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT**

| Category * | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No. |
|------------|---|-----------------------|
| X          | WO 96 29065 A (UMILE ALBERTO ;CHIESI PAOLO (IT); BONGRANI STEFANO (IT); CHIESI FA)<br>26 September 1996 (1996-09-26)            | 4,5                   |
| Y          | page 3, paragraph 3 - paragraph 7<br>-----  | 1-3                   |
| Y          | US 5 236 907 A (UENO RYUZO ET AL)<br>17 August 1993 (1993-08-17)<br>column 9, line 56 -column 10, line 3<br>claims 1,4<br>----- | 1-3                   |
| Y          | EP 0 009 702 A (SCHERING CORP)<br>16 April 1980 (1980-04-16)<br>page 21, line 30 -page 22, line 5<br>-----                      | 1-3                   |

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 00/07184

| Patent document<br>cited in search report |   | Publication<br>date | Patent family<br>member(s) | Publication<br>date |
|---|---|---------------------|----------------------------|---------------------|
| GB 2123410                                | A | 01-02-1984          | IT 1218322 B               | 12-04-1990          |
|   |   |                     | DE 3320936 A               | 22-12-1983          |
|   |   |                     | FR 2528422 A               | 16-12-1983          |
| WO 9629065                                | A | 26-09-1996          | IT MI950532 A              | 17-09-1996          |
|   |   |                     | AU 702656 B                | 25-02-1999          |
|   |   |                     | AU 5107296 A               | 08-10-1996          |
|   |   |                     | BR 9607996 A               | 23-06-1998          |
|   |   |                     | CA 2215671 A               | 26-09-1996          |
|   |   |                     | CN 1181699 A               | 13-05-1998          |
|   |   |                     | CZ 9702866 A               | 18-03-1998          |
|   |   |                     | EP 0814791 A               | 07-01-1998          |
|   |   |                     | HU 9801686 A               | 28-06-1999          |
|   |   |                     | JP 11502211 T              | 23-02-1999          |
|   |   |                     | LT 97147 A, B              | 25-02-1998          |
|   |   |                     | LV 11882 A                 | 20-12-1997          |
|   |   |                     | LV 11882 B                 | 20-03-1998          |
|   |   |                     | NO 974267 A                | 07-11-1997          |
|   |   |                     | PL 322284 A                | 19-01-1998          |
|   |   |                     | SI 9620036 A               | 28-02-1998          |
|   |   |                     | SK 125497 A                | 04-02-1998          |
|   |   |                     | TR 9700963 T               | 21-02-1998          |
|   |   |                     | US 6013678 A               | 11-01-2000          |
|   |   |                     | ZA 9602073 A               | 25-09-1996          |
| US 5236907                                | A | 17-08-1993          | JP 2008226 C               | 11-01-1996          |
|   |   |                     | JP 2096528 A               | 09-04-1990          |
|   |   |                     | JP 7039343 B               | 01-05-1995          |
|   |   |                     | JP 2009965 C               | 02-02-1996          |
|   |   |                     | JP 2096529 A               | 09-04-1990          |
|   |   |                     | JP 7039344 B               | 01-05-1995          |
|   |   |                     | AT 111736 T                | 15-10-1994          |
|   |   |                     | AT 162074 T                | 15-01-1998          |
|   |   |                     | DE 68918391 D              | 27-10-1994          |
|   |   |                     | DE 68918391 T              | 19-01-1995          |
|   |   |                     | DE 68928551 D              | 19-02-1998          |
|   |   |                     | DE 68928551 T              | 23-04-1998          |
|   |   |                     | EP 0366279 A               | 02-05-1990          |
|   |   |                     | EP 0580268 A               | 26-01-1994          |
|   |   |                     | US 5194429 A               | 16-03-1993          |
| EP 0009702                                | A | 16-04-1980          | AT 351 T                   | 15-11-1981          |
|   |   |                     | AU 528626 B                | 05-05-1983          |
|   |   |                     | AU 5088179 A               | 27-03-1980          |
|   |   |                     | CA 1151211 A               | 02-08-1983          |
|   |   |                     | CY 1175 A                  | 10-06-1983          |
|   |   |                     | DD 150457 A                | 02-09-1981          |
|   |   |                     | DE 2961263 D               | 14-01-1982          |
|   |   |                     | DK 387579 A                | 21-03-1980          |
|   |   |                     | ES 484208 D                | 01-12-1980          |
|   |   |                     | ES 8101038 A               | 01-03-1981          |
|   |   |                     | FI 792884 A                | 21-03-1980          |
|   |   |                     | GR 73179 A                 | 14-02-1984          |
|   |   |                     | HK 13383 A                 | 29-04-1983          |
|   |   |                     | HU 185523 B                | 28-02-1985          |
|   |   |                     | IE 49301 B                 | 18-09-1985          |
|   |   |                     | IL 58258 A                 | 31-01-1984          |
|   |   |                     | JP 1605790 C               | 31-05-1991          |

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 00/07184

| Patent document<br>cited in search report | Publication<br>date | Patent family<br>member(s) | Publication<br>date |
|---|---------------------|----------------------------|---------------------|
| EP 0009702 A                              |                     | JP 2010128 B               | 06-03-1990          |
|   |                     | JP 55055147 A              | 22-04-1980          |
|   |                     | JP 59108749 A              | 23-06-1984          |
|   |                     | JP 2167253 A               | 27-06-1990          |
|   |                     | KE 3283 A                  | 13-05-1983          |
|   |                     | KR 8901998 B               | 07-06-1989          |
|   |                     | MY 4285 A                  | 31-12-1985          |
|   |                     | NO 792993 A, B,            | 21-03-1980          |
|   |                     | NZ 191589 A                | 30-03-1984          |
|   |                     | OA 6339 A                  | 30-06-1981          |
|   |                     | PH 16794 A                 | 28-02-1984          |
|   |                     | PL 218408 A                | 08-09-1980          |
|   |                     | PT 70191 A                 | 01-10-1979          |
|   |                     | SG 283 G                   | 16-09-1983          |
|   |                     | US 4312863 A               | 26-01-1982          |
|   |                     | US 4619919 A               | 28-10-1986          |
|   |                     | US 4950783 A               | 21-08-1990          |
|   |                     | YU 227379 A                | 30-06-1983          |
|   |                     | ZA 7904872 A               | 26-11-1980          |